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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/931,423	08/16/2001	Yong Kyu Kwon	8512-399	2902

7590  
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1750 Tysons Boulevard  
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06/23/2003

EXAMINER

CIRIC, LJILJANA V

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 06/23/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/931,423

Applicant(s)  
Kwon et al.

Examiner  
Ljiljana V. Ciric

Art Unit  
3743



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Mar 25, 2003
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above, claim(s) 5 and 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-10, and 12-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Aug 16, 2001 is/are a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some\* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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## **DETAILED ACTION**

### ***Election/Restriction***

1. Applicant's election with traverse of the first species or the embodiment of Figure 2, drawn to claims 1 through 4, 6 through 10, and 12 through 14 in Paper No. 4 is acknowledged. The traversal is on the ground(s) that claim 1 is generic. Not only is claim 1 not generic since it includes material elements additional to those recited in the some of the remaining species claims, but the mere existence of a generic claim does not preclude a restriction requirement being proper. Thus, applicant has failed to specifically point out the reasons on which he or she bases his or her conclusions that the requirement to restrict is in error. Applicant, for example, does not state that the species are not patentably distinct.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 5 and 11 are hereby withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected second species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 4.

### ***Priority***

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

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***Specification***

4. The abstract of the disclosure is objected to because it comprises a run-on sentence including grammatical informalities rendering the abstract difficult to comprehend. Correction is required. See MPEP § 608.01(b).

***Claim Objections***

5. Claim 14 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 14, instead of further limiting apparatus claim 7, adds method steps thereto. Furthermore, although it is written in a dependent form of sorts, it is not clear whether method claim 14 is indeed intended to depend from apparatus claim 7 or not.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1 through 4, 6 through 10, and 12 through 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 appears to recite both an apparatus (a heat exchanger) and a process of using the apparatus (the limitations following “wherein” in the claim) and, along with all claims depending

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therefrom, is therefore indefinite for failing to positively recite the metes and bounds of protection sought.

The preamble of each of base claims 1 and 7 refers to the invention as a “heat exchanger”, leading one to believe that the invention is drawn to the subcombination of a heat exchanger, whereas the body of each of these claims recites a variety of elements in addition to the recited evaporator (i.e., heat exchanger). Since the body of each of these base claims appears to be drawn to the combination of a heat exchanger (i.e., evaporator) and a variety of other elements external thereto, there is a discrepancy between the scope of the preamble and the scope of the body of each of these claims, as well as between the respective scopes of the preamble and the body of each of the claims depending therefrom, thus rendering all of claims 1 through 4 and 6 through 13 indefinite with regard to the scope of protection sought thereby.

The limitations “are *arranged horizontally on a substantially same plane*” [claim 2, line 3] and “are *arranged horizontally on substantially the same plane*” [claim 8, line 2] do not clearly correspond to a particular structural configuration or configurations, thereby rendering indefinite these claims and any claims depending therefrom. First of all, it is generally not clear how, absent the recitation of a particular axis or planar surface of a three-dimensional object as being horizontally arranged, it is not clear how the three-dimensional elements such as the blower and the inlets/outlets are to be configured in order to be “arranged horizontally”. Second of all, it is

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similarly not clear how these three-dimensional elements may be arranged on “substantially the same plane” or on “a substantially same plane” as recited in the aforementioned claims.

Also with regard to claim 2 as written, it is not clear what is meant by the limitations “the blower is located *opposite to* the air inlet unit and the air outlet unit *with regard to* the evaporator”, further rendering indefinite claim 2 and all claims depending therefrom.

Also, the limitations “located in front of” as recited in each of claims 3 and 9 are similarly unclear with regard to the intended scope of protection sought thereby. Recommend using terms such as “upstream” or “downstream”, as appropriate, for improved clarity.

Finally, method claim 14 appears to depend from apparatus claim 7, but is not clear whether or not the heat exchanger recited in line 2 of the claim refers to the heat exchanger recited in the preamble of claim 7 or to the evaporator (i.e., heat exchanger) recited in claim 2 of claim 7, thus rendering indefinite the intended scope of protection sought. Furthermore, it is not clear, if the entire body of claim 7 is being incorporated into claim 14, whether the limitations “a first predetermined portion” [claim 14, lines 4-5] and “a second predetermined portion” [claim 14, line 7] refer to the same first and second predetermined portions of the evaporator as recited in claim 7 or to a different set of first and second predetermined evaporator portions.

The above is an indicative, but not necessarily an exhaustive, list of 35 U.S.C. 112, second paragraph, problems. Applicant is therefore advised to carefully review all of the claims for additional problems. Correction is required of all of the 35 U.S.C. 112, second paragraph problems, whether or not these were particularly pointed out above.

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***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. As best can be understood in view of the indefiniteness of the claims, claims 1 through 4, 6 through 10, and 12 through 14 are rejected under 35 U.S.C. 102(b) as being anticipated by *Wulle*.

*Wulle* discloses a "heat exchanger" essentially as claimed, including: a tempering core 12 or coils 17 readable on the evaporator as cited in the claims of the instant invention; a blower 14 including blower motor 15; a flange 25 readable on the air inlet or air inlet unit as recited in the claims of the instant invention; an air outlet unit or air outlet formed between base 9 and casing 11; and, a guide or flange 26. The inside portion of the tempering core 12 or coils 17 is readable on the first predetermined portion as recited in the claims of the instant invention, whereas the outside portion of the tempering core 12 or coils 17 is readable on the second predetermined portion as recited in the claims of the instant invention.

The reference thus reads on the claims.

10. Alternately and as best can be understood in view of the indefiniteness of the claims, claims 1 through 4, 6 through 10, and 12 through 14 are rejected under 35 U.S.C. 102(b) as being anticipated by *Shiraki Kinzoku Kogyo K.K.*

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*Shiraki Kinzoku Kogyo K.K.* discloses a "heat exchanger" essentially as claimed, including: a heat pipe 12 readable on the evaporator as recited in the claims of the instant invention, having a first predetermined portion 12b and a second predetermined portion 12a; a blower 14; an air inlet unit 3 or air inlet 1; an air outlet unit 5 or air outlet 2; and, at least one guide unit or guide flap 20, for example.

The reference thus reads on the claims.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

*Wilson et al.*, *Arold et al.*, *Stech*, *Sadovich*, and *Hitachi Ltd.* each discloses a vehicular air conditioner/heat exchanger arrangement.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric, whose telephone number is (703) 308-3925.

While she works a flexible schedule that varies from day to day and from week to week, Examiner Ciric may generally be reached at the Office during the work week between the hours of 10 a.m. and 6 p.m. ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett, can be reached on (703) 308-0101. The fax phone number is (703) 305-3463.




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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

lvc  
June 13, 2003

  
LJILJANA V. CIRIC  
PRIMARY EXAMINER  
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